

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Aquatic Resources
Honolulu, Hawaii 96813

May 8, 2009

Board of Land
and Natural Resources
Honolulu, Hawaii

Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Conservation and Management Permit to Kelly Gleason, National Oceanic and Atmospheric Administration, Papahānaumokuākea Marine National Monument, for Access to State Waters to Conduct Maritime Heritage Activities.

The Division of Aquatic Resources (DAR) hereby submits a request for your authorization and approval for issuance of a Papahānaumokuākea Marine National Monument conservation and management permit to applicant Kelly Gleason, Maritime Archaeologist, of the National Oceanic and Atmospheric Administration (NOAA), Papahānaumokuākea Marine National Monument, pursuant to § 187A-6, Hawaii Revised Statutes (HRS), chapter 13-60.5, Hawaii Administrative Rules (HAR), and all other applicable laws and regulations.

The conservation and management permit, as described below, would allow entry and management activities to occur in the Papahānaumokuākea Marine National Monument (Monument), including the NWHI State Marine Refuge and the waters (0-3 nautical miles) surrounding the following sites:

- Nihoa Island
- Necker Island (Mokumanamana)
- French Frigate Shoals,
- Pearl and Hermes Atoll,
- Kure Atoll

The activities covered under this permit would occur from June 1, 2009 through September 30, 2009.

The proposed activities are largely a renewal of work previously permitted and conducted in the Monument.

INTENDED ACTIVITIES

The applicant proposes to conduct the following maritime heritage activities:

- 1) non-invasive wreck site assessment surveys;

- 2) non-invasive remote sensing and snorkeler towboard surveys of high potential wreck site areas;
- 3) recovery of a selected artifact from shipwreck sites at French Frigate Shoals; and
- 4) monitoring of shipwreck and sunken aircraft sites for the purpose of understanding impacts and changes to maritime heritage sites.

The first activity refers to a detailed investigation of a single wreck or archaeological site, while the second is a broader search for previously unlocated and undiscovered resources. During the site assessments, divers would deploy a temporary baseline, replicating previous surveys by attaching the baseline to fixed stainless steel datums. Survey tapes would be used to triangulate the position of all artifacts in reference to the fixed line. Artifacts and features would be temporarily tagged with numbers and photographed in-place. Remote sensing surveys are conducted by a surface vessel towing a magnetometer sensor near the surface, recording variations in the localized magnetic field. Diver tow boarding may be used to supplement this activity in certain areas.

The third activity would be the recovery of a historic artifact (a fire brick) from an unidentified whaling shipwreck site at French Frigate Shoals. Diagnostic artifacts are necessary for wreck site identification, and are invaluable means of education and outreach for the public. Removal would consist of collecting the artifact from the surface of the hard bottom substrate, placing it into a padded container underwater and carefully transporting to the dive boat and main vessel. No sediment or substrate would be moved or disturbed in the process, as the artifact is not buried. Once back in the main Hawaiian Islands, the artifact would be delivered to the curatorial facility in Hilo for further study and public display. All artifact recovery activities would be conducted according to strict protocol and with the highest level of sensitivity to natural, cultural and historic resources.

The fourth activity of monitoring for changes in site/environmental data is a secondary objective of the proposed work. Monitoring would employ the same methods used for the site surveys.

The activities proposed by the applicant directly support the Monument Management Plan's priority management needs 3.1 – Understanding and Interpreting the NWHI (through action plan 3.1.4 – Maritime Heritage). These activities contribute to ongoing maritime heritage survey and inventory efforts within the Monument.

The activities described above may require the following regulated activities to occur in State waters:

- ☒ Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource
- ☒ Anchoring a vessel
- ☒ Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

REVIEW PROCESS:

The permit application was sent out for review and comment to the following scientific and cultural entities: Hawaii Division of Aquatic Resources, Hawaii Division of Forestry and Wildlife, Papahānaumokuākea Marine National Monument (NOAA/NOS), NOAA Pacific Islands Regional Office (NOAA-PIRO), United States Fish and Wildlife Service Hawaiian and Pacific Islands National Wildlife Refuge Complex Office, and the Office of Hawaiian Affairs (OHA). In addition, the permit application has been posted on the Monument Web site since March 11th, giving the public an opportunity to comment. The application was posted within 40 days of its receipt, in accordance with the Monument's Public Notification Policy.

Comments received from the scientific community are summarized as follows:

Scientific reviews support the acceptance of this application.

Concerns raised were:

1. How any organisms adhering to the artifacts, and/or water used to transport the artifacts back to the Main Hawaiian Islands would be sterilized prior to transport
2. Artifacts collected in State of Hawaii waters are the property of the State of Hawaii. Future use of the artifacts should be outlined in a loan agreement between the State of Hawaii and the other Co-Trustees

Comments received from the Native Hawaiian community are summarized as follows:

Cultural reviews support the acceptance of this application. No concerns were raised.

Comments received from the public are summarized as follows:

No comments were received from the public on this application.

Additional reviews and permit history:

Are there other relevant/necessary permits or environmental reviews that have or will be issued with regard to this project? (e.g., MMPA, ESA, EA) Yes ☒ No ☐

If so, please list or explain:

- State of Hawaii DLNR Section 106 Compliance (complete)

Has Applicant been granted a permit from the State in the past? Yes ☒ No ☐

If so, please summarize past permits:

- The applicant was granted permit PMNM-2008-037 in 2008. In addition, similar work has been conducted under State and Monument permits issued to Dr. Hans Van Tilburg since 2006.

Have there been any a) violations: Yes ☐ No ☒
b) Late/incomplete post-activity reports: Yes ☐ No ☒

Are there any other relevant concerns from previous permits? Yes ☐ No ☒

RESPONSE:

1. The Applicant has included a disease and introduced species protocol for the recovery of artifacts from the Monument. The protocol involves placing the artifacts in containers of fresh water which are immediately sealed, and remain sealed and secure until returning to Honolulu. Once in Honolulu, the artifacts are removed from the fresh water, wrapped in damp towels, and sent to a conservation facility in California for treatment. The fresh water used to transport the artifacts to Honolulu is then treated with a bleach solution and disposed of. For further details, see attached protocol.
2. The Applicant is aware of this issue and plans to work with the Navy and/or the State to secure any necessary loan agreements.

STAFF OPINION:

DAR staff is of the opinion that Applicant has properly demonstrated valid justifications for her application and should be allowed to enter the NWHI State waters and to conduct the activities therein as specified in the application with the following special instructions and conditions, which are in addition to the Papahānaumokuākea Marine National Monument Conservation and Management Permit General Conditions. The following special conditions have been vetted through the legal counsel of the Co-Trustee agencies.

1. This permit is not to be used for nor does it authorize the sale of collected organisms. Under this permit, the authorized activities must be for noncommercial purposes not involving the use or sale of any organism, by-products, or materials collected within the Monument for obtaining patent or intellectual property rights.
2. To prevent introduction of disease or the unintended transport of live organisms, the permittee must comply with the disease and transport protocols attached to this permit.
3. Tenders and small vessels must be equipped with engines that meet EPA emissions requirements.
4. Refueling of tenders and all small vessels must be done at the support ships and outside the confines of lagoons or near-shore waters in the State NWHI Marine Refuge.

5. No fishing is allowed in state waters except as authorized under State law for subsistence, traditional and customary practices by Native Hawaiians.

MONUMENT MANAGEMENT BOARD OPINION:

The MMB is of the opinion that the Applicant has met the findings of Presidential Proclamation 8031 and this activity may be conducted subject to completion of all compliance requirements. The MMB concurs with the special conditions recommended by DAR staff.

RECOMMENDATION:

“That the Board authorize and approve, with stated conditions, a Conservation and Management Permit to Kelly Gleason, NOAA, Papahānaumokuākea Marine National Monument.”

Respectfully submitted,



DAN POLHEMUS
Administrator

APPROVED FOR SUBMITTAL



LAURA H. THIELEN
Chairperson

Papahānaumokuākea Marine National Monument
CONSERVATION AND MANAGEMENT Permit Application

NOTE: *This Permit Application (and associated Instructions) are to propose activities to be conducted in the Papahānaumokuākea Marine National Monument. The Co-Trustees are required to determine that issuing the requested permit is compatible with the findings of Presidential Proclamation 8031. Within this Application, provide all information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Papahānaumokuākea Marine National Monument (Monument).*

ADDITIONAL IMPORTANT INFORMATION:

- Any or all of the information within this application may be posted to the Monument website informing the public on projects proposed to occur in the Monument.
- In addition to the permit application, the Applicant must either download the Monument Compliance Information Sheet from the Monument website OR request a hard copy from the Monument Permit Coordinator (contact information below). The Monument Compliance Information Sheet must be submitted to the Monument Permit Coordinator after initial application consultation.
- Issuance of a Monument permit is dependent upon the completion and review of the application and Compliance Information Sheet.

INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED

Send Permit Applications to:

Papahānaumokuākea Marine National Monument Permit Coordinator

6600 Kalaniana'ole Hwy. # 300

Honolulu, HI 96825

nwhipermmit@noaa.gov

PHONE: (808) 397-2660 FAX: (808) 397-2662

**SUBMITTAL VIA ELECTRONIC MAIL IS PREFERRED BUT NOT REQUIRED. FOR
ADDITIONAL SUBMITTAL INSTRUCTIONS, SEE THE LAST PAGE.**

Papahānaumokuākea Marine National Monument Permit Application Cover Sheet

This Permit Application Cover Sheet is intended to provide summary information and status to the public on permit applications for activities proposed to be conducted in the Papahānaumokuākea Marine National Monument. While a permit application has been received, it has not been fully reviewed nor approved by the Monument Management Board to date. The Monument permit process also ensures that all environmental reviews are conducted prior to the issuance of a Monument permit.

Summary Information

Applicant Name: Dr. Kelly Gleason

Affiliation: Papahānaumokuākea Marine National Monument

Permit Category: Conservation and Management

Proposed Activity Dates: 4/1/2009-9/10/2009

Proposed Method of Entry (Vessel/Plane): Vessel (Hi'ialakai for ship surveys), plane for remote sensing at Midway

Proposed Locations: French Frigate Shoals, Maro Reef, Pearl and Hermes Atoll, Midway Atoll, Kure Atoll

Estimated number of individuals (including Applicant) to be covered under this permit: 7

Estimated number of days in the Monument: 70

Description of proposed activities: (complete these sentences):

a.) The proposed activity would...

The annual PMNM maritime heritage resources cruise will conduct activities to fulfill Monument management activities including: 1) non-invasive wreck site assessment survey of selected maritime heritage sites; 2) non-invasive remote sensing survey (magnetometer and side scan sonar) and snorkeler towboard survey of high potential wreck site areas 3) recovery of a selected artifact from shipwreck sites at French Frigate Shoals (Section 106 compliance pending) for the purposes of education, outreach and research and identification and 4) monitoring of known shipwreck and sunken aircraft sites for the purposes of understanding impacts and changes to maritime heritage sites. The first activity is a detailed investigation of a single wreck or archaeological site; the second is a broader search for previously un-located and undiscovered resources, the third allows for identification and inventory of maritime heritage sites, and the fourth will work to develop archaeological, observational and ecologically based methods of interpreting and monitoring maritime heritage sites in the NWHI.

b.) To accomplish this activity we would

This project is part of a continuing effort to conduct maritime heritage management activities in the Monument including inventory, and documentation of sites. Comprehensive non-invasive

assessment surveys of previously located wreck sites allow managers to compile an inventory of critical and non-renewable historic resources. Of the possible 126 shipwreck and historic aircraft lost in the area, 20 have been confirmed by field investigation. To date inventory surveys of eight of these 24 have been completed in the NWHI. Maritime heritage summaries of site surveys are available at <http://sanctuaries.noaa.gov/maritime>. A simple low impact technique known as “baseline trilateration” is used to map wreck sites (see Methods). Sites selected for initiating non-invasive survey in 2009 include and unidentified whaling ship at French Frigate Shoals, the British collier Dunnottar Castle (1886) and the British whale ship Gledstanes (1837) at Kure Atoll. Sites selected for environmental assessment include the British whalers Pearl and Hermes (1822) at Pearl and Hermes Atoll, the large wooden schooner Churchill (1917) at French Frigate Shoals, the British collier Dunnottar Castle (1886) at Kure Atoll and the submarine rescue vessel Macaw (1944) at Midway Atoll in addition to the sunken WWII era Corsair plane at Midway Atoll. Alternate site surveys include the Liberty ship Quartette at Pearl and Hermes Atoll (see Maps attached).

Remote sensing survey, the second basic method proposed for the 2009 survey, locates anomalies and potential maritime heritage resources for subsequent “ground-truth” site assessments. Generally areas in the seaward vicinity of the reef crest are chosen for initial remote sensing survey due to the high potential for wreck remains in those areas. Specific reef crest zones are determined by historical records of wreck events. The 2009 remote sensing survey will be conducted with a Klein Model 3000 side scan sonar and Marine Magnetics Explorer Mini Magnetometer. The side scan sonar will be used during searches for sunken aircraft sites at Midway Atoll, and will effectively image the sandy seafloor areas explored in the atoll. The magnetometer will be used for shallow (<100 ft.) surveys at Midway. Alternatively, snorkeler tow boarding may be used to locate potential heritage resource sites in a similar manner.

Diagnostic artifacts are helpful for wreck site identification. Additionally, artifacts become invaluable means of education and outreach for the public, particularly for remote sites that visitors may never get to visit. Recovery, conservation and display of tryworks bricks will assist maritime heritage managers in confirming the identity of the shipwreck sites and provide an important artifact to be shared with the public, adding to interpreting the site and history of the Monument. Removal consists of collecting the selected bricks from the surface of the hard bottom substrate, placing them into a padded container underwater and carefully transporting them to the dive boat and main vessel. No sediment or substrate will be moved or disturbed in the process (artifacts are not buried). All artifact recovery activities will be conducted according to strict protocol and with the highest level of sensitivity to natural, cultural and historic resources.

Thus far, biological assessments of shipwrecks upon the environment have been largely subjective, and no strategy for extracting measurable biological or environmental data from these sites in the field has been established. Evaluation of shipwrecks as environmental threats has been limited in the Pacific to ships that are intertidal (Helton, 2003) or have grounded on a coral reef (Maragos, 1994), thus limiting our understanding of the way that shipwreck sites interact with the environment at different depths and in different substrate in the NWHI. 2009 survey work also includes an pilot study to environmentally assess maritime heritage sites in the

Northwestern Hawaiian Islands as a means to develop a long term monitoring strategy based up on environmental factors. This study will help to characterize the shipwreck sites as environmental resources, which is a gap in resource management in PMNM.

c.) This activity would help the Monument by ...

2009 maritime heritage project data (site survey, remote sensing, artifact recovery and monitoring) will contribute to the management inventory for the PMNM, as well as provide the program material for education and outreach efforts. Certain data generated by the survey is sensitive and will be protected from unregulated public distribution as determined by the PMNM (also see NHPA section 304). Maritime heritage survey will be conducted in compliance with the appropriate preservation regulations (National Historic Preservation Act, Archaeological Resources Protection Act, Antiquities Act, Sunken Military Craft Act et al) and satisfies federal and state mandates for heritage resource inventory of controlled waters. Monitoring work at maritime heritage sites in 2009 will assist managers in better understanding the interaction between these sunken sites and the ecosystem, as well as help to develop an understanding of their structural integrity. 2009's study will serve as a pilot project for the further development of a shipwreck monitoring protocol for maritime heritage sites in the NWHI.

Other information or background: The 2009 maritime heritage survey is a multidisciplinary project including efforts to further inventory and assess shipwreck sites in the NWHI, and share these findings with the public in a responsible manner. Work in 2009 will serve to explore, further investigate and environmentally assess the maritime heritage sites in the Monument.

Maritime archaeology is by nature an interdisciplinary science, and the 2009 survey will further demonstrate that fact. NOAA's Maritime Heritage Program was initiated in 2002. Currently, NOAA's Maritime Heritage Program is the only agency engaged in maritime heritage survey in the PMNM.

Over 60 shipwrecks have been reported lost in the PMNM, some dating back to 1805. Many of these wrecks may be important cultural or historical resources, capturing information about the maritime history of the region. Sites may furnish information about western seafaring, as well as Native Hawaiian seafaring, for many historic ships (such as whalers) recruited Native Hawaiians as skilled crew members. However, there are very few completed site assessments for the NWHI; the compilation of the resource database has just begun. Due to the time required for careful site survey and the logistical constraints of research cruises, often only portions of the required mapping/survey work at each site can be completed during each season. Completed site assessments are the most effective heritage resource survey tool.

Survey work in 2009 will continue upon efforts begun in 2002. Subsequent work continued in 2003, and then annually since 2005. The planned survey work to be conducted in 2009 will continue these efforts, focusing on non-invasive non-excavation data recording at selected heritage sites at Kure, Midway, Pearl and Hermes Atoll, and French Frigate Shoals, as well as

the recovery of diagnostic artifacts from a shipwreck site at French Frigate Shoals (Section 106 compliance pending).

Without an understanding of the resource base, without an accurate inventory of significant heritage material, maritime heritage resource management is impossible. Historic shipwrecks are subject to natural deterioration as well as intentional or inadvertent damage (dredging, looting, re-use). The first step in management is to create a resource inventory by confirming identification of sites. The next step is to conduct site assessment, characterizing the nature of the resource. Inventory and assessment are heritage preservation actions common to a number of federal and state programs. The 2009 research therefore supports cultural and historical management efforts on behalf of the different agencies of the Monument Management Board. This survey specifically addresses mandates for maritime heritage resource inventory as stated in the the draft PMNM Management Plan. 2009 work will also include an education and outreach effort.

Section A - Applicant Information

1. Applicant

Name (last, first, middle initial): Gleason, Kelly, A.

Title: Maritime Archaeologist, Papahānaumokuākea Marine National Monument

1a. Intended field Principal Investigator (See instructions for more information):
Dr. Kelly Gleason

2. Mailing address (street/P.O. box, city, state, country, zip): [REDACTED]
[REDACTED]

Phone: [REDACTED]

Fax: [REDACTED]

Email: [REDACTED]

For students, major professor's name, telephone and email address:

3. Affiliation (institution/agency/organization directly related to the proposed project):
NOAA/NMSP

4. Additional persons to be covered by permit. List all personnel roles and names (if known at time of application) here (e.g. John Doe, Research Diver; Jane Doe, Field Technician):

- 1) To be determined (research diver/maritime archaeologist)
- 2) To be determined (research diver/maritime archaeologist)
- 3) To be determined (research diver/maritime archaeologist)
- 4) To be determined (research diver/maritime archaeologist)
- 5) To be determined (research diver/maritime archaeologist)
- 6) To be determined (research diver/maritime archaeologist)

Section B: Project Information

5a. Project location(s):

<input checked="" type="checkbox"/> Nihoa Island	<input type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Necker Island (Mokumanamana)	<input type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> French Frigate Shoals	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Gardner Pinnacles	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Maro Reef			
<input checked="" type="checkbox"/> Laysan Island	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Lisianski Island, Neva Shoal	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Pearl and Hermes Atoll	<input type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input checked="" type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Midway Atoll	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input checked="" type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Kure Atoll	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input checked="" type="checkbox"/> Deep water
<input type="checkbox"/> Other			

NOTE: There is a fee schedule for people visiting Midway Atoll National Wildlife Refuge via vessel and aircraft.

Location Description:

Special note: specific location (latitude/longitude) for historically significant heritage resources is sensitive data—not to be distributed publicly. Locations for 2009 maritime heritage work have been provided to the Monument Permit Coordinator.

5b. Check all applicable regulated activities proposed to be conducted in the Monument:

- ☒ Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource
- ☐ Drilling into, dredging, or otherwise altering the submerged lands other than by anchoring a vessel; or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands
- ☒ Anchoring a vessel
- ☐ Deserting a vessel aground, at anchor, or adrift
- ☐ Discharging or depositing any material or matter into the Monument
- ☐ Touching coral, living or dead
- ☐ Possessing fishing gear except when stowed and not available for immediate use during passage without interruption through the Monument
- ☐ Attracting any living Monument resource
- ☐ Sustenance fishing (Federal waters only, outside of Special Preservation Areas, Ecological Reserves and Special Management Areas)
- ☐ Subsistence fishing (State waters only)

☒ Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

6 Purpose/Need/Scope *State purpose of proposed activities:*

Over 60 shipwrecks have been recorded in the NWHI, some dating back to 1805. Many of these wrecks are important cultural resources, capturing the maritime history of the region. Furthermore, state and federal preservation legislation mandate the surveying of historic shipwreck sites and the production of submerged cultural resource management plans for historically significant material. Due to time constraints in the NWHI, surveys of any sites can only be partially completed during any single season. The work to be conducted in 2009 will continue upon investigation from previous years, conduct remote sensing survey and towboard surveys for the possible discovery of new historic resource sites, and recover artifacts for the purposes of identification of a shipwreck site, and environmental assessment of shipwreck and sunken aircraft sites for the purposes of developing a pilot project for future studies and the development of a long term monitoring project for maritime heritage sites in the Monument.

The proposed work is part of the long term archaeological survey for maritime heritage resources in the Papahānaumokuākea Marine National Monument. Federal preservation initiatives mandate the inventory, assessment and protection of cultural, archaeological, and historical resources within federally managed waters. 2009 proposed survey features non-invasive recording techniques for the discovery, identification and assessment of submerged heritage resources as part of this mandate, and will conduct artifact recovery in accordance with all applicable standards (Conditions for the Custody and Care of Navy Historical Property, Annexed Rules of the UNESCO Convention on the Protection of Underwater Cultural Heritage) .

The purpose of the 2009 survey is to better understand the existing maritime heritage resources in the Monument. Inventory and site assessment are critical parts of resource management and ocean stewardship. The Maritime Heritage Survey team plans to continue non-invasive survey of selected maritime heritage resource sites initiated in previous field seasons in the NWHI and attempt to identify unknown sites, and survey for new shipwreck and sunken aircraft sites. Additionally, the 2009 survey will serve to take Monument maritime heritage research in a new direction with the multidisciplinary survey of the shipwreck sites in the NWHI.

7. Answer the Findings below by providing information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Monument:

The Findings are as follows:

a. How can the activity be conducted with adequate safeguards for the cultural, natural and historic resources and ecological integrity of the Monument?

The activity will be conducted with adequate safeguards for the resources and ecological integrity of the Monument. This project is part of a continuing effort to identify, interpret and protect maritime heritage resources in the Papahānaumokuākea Marine National Monument. Proposed heritage work in the NWHI emphasizes a low-impact approach, to an extent consistent with the Monument's conservation goals and objectives. Section 106 NHPA compliance will be submitted to the State Historic Preservation Office and OHA for review. NEPA permit is pending for this activity.

All maritime heritage scientists will participate in a cultural briefing prior to entering the Monument. The team will respect all resources both natural and cultural. The primary permittee will consult with OHA and the Native Hawaiian Coordinator at the PMNM on cultural sensitivities, as well as the applicability of these activities to OHA and the Native Hawaiian Coordinator's efforts for the PMNM. No archaeological work will take place near any known native Hawaiian archaeological sites. If any native Hawaiian sites should be discovered, the proper experts will be notified and consulted immediately. Plans to collaborate with cultural practitioners on board the vessel will allow for further understanding and interpretation of the cultural significance of the Monument.

b. How will the activity be conducted in a manner compatible with the management direction of this proclamation, considering the extent to which the conduct of the activity may diminish or enhance Monument cultural, natural and historic resources, qualities, and ecological integrity, any indirect, secondary, or cumulative effects of the activity, and the duration of such effects? The proposed project will have minimal impact on the resources of the region. The research consists primarily of non-invasive visual surveys. This research is being conducted in concert with the priorities listed in the Maritime Heritage Action Plan of the Monument's Management Plan (inventory and assessment, as well as education and outreach). The strategies proposed are designed to increase our understanding of maritime heritage resources and foster effective and protective management in the Monument. This project will also include multidisciplinary and partnership efforts towards increasing stewardship and enhancement of Monument goals and resources.

c. Is there a practicable alternative to conducting the activity within the Monument? If not, explain why your activities must be conducted in the Monument. There is no practicable alternative to conducting the activities in the Monument. Annual maritime heritage surveys are necessary to identify, document and protect the maritime heritage resources in the Papahānaumokuākea Marine National Monument. Additionally, these surveys contribute to education and outreach efforts regarding maritime heritage resources in the PMNM. These activities directly relate to activities in the Monument's draft management plan.

d. How does the end value of the activity outweigh its adverse impacts on Monument cultural, natural and historic resources, qualities, and ecological integrity?

The proposed activities have been identified as vital to the future management of the Monument and will have no adverse impact on the resources, qualities and ecological

integrity of the Monument. Additionally, the opportunity to conduct important education and outreach activities through web presence, presentations and articles will assist in Monument's efforts to promote stewardship and protection of resources, both natural and cultural. Efforts to partner and collaborate with cultural practitioners on the vessel will enhance the value of the maritime heritage activities in the Monument. The 2009 survey will include collaboration with an ecologist conducting multidisciplinary research on maritime heritage sites. This project will serve to develop a multi-dimensional approach to understanding these shipwreck and aircraft sites in the NWHI.

e. Explain how the duration of the activity is no longer than necessary to achieve its stated purpose.

A minimal amount of time will be spent at each location depending on weather and oceanographic conditions.

f. Provide information demonstrating that you are qualified to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.

Personnel included in this permit application have extensive experience conducting research in the Monument, and with all archaeological and ecological methods that will be utilized. This is a continuance of a multi-year project. All methods are primarily non-invasive. OHA and cultural practitioners will be consulted in order to further avoid any potential impacts.

g. Provide information demonstrating that you have adequate financial resources available to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.

This cruise and subsequent data analyses are supported by an allocation of 60 days at sea aboard the NOAA ship HIILAKAI from NOAA's Office of Marine and Aviation Operations, a line item in the budget of NOAA's Papahānaumokuākea Marine National Monument, and an allocation of funds from NOAA's Coral Reef Conservation Program to NOAA Pacific Islands Fisheries Science Center. Additionally, remote sensing survey work to be conducted at Midway Atoll will be supported by a grant from the American Battlefield Protection Program to survey and document sites associated with the Battle of Midway.

h. Explain how your methods and procedures are appropriate to achieve the proposed activity's goals in relation to their impacts to Monument cultural, natural and historic resources, qualities, and ecological integrity.

The research consists primarily of non-invasive surveys. Any artifact recovery will follow proper protocol (Conditions for the Custody and Care of Navy Historical Property, Annexed Rules of the UNESCO Convention on the Protection of Underwater Cultural Heritage) and undergo Section 106 and NEPA clearance. OHA and cultural practitioners will be consulted in order to further avoid any potential impacts.

i. Has your vessel has been outfitted with a mobile transceiver unit approved by OLE and complies with the requirements of Presidential Proclamation 8031?

The NOAA research vessel Hi'ialakai has been outfitted with a mobile transceiver unit approved by OLE and complies with the requirements of the Presidential Proclamation 8031.

j. Demonstrate that there are no other factors that would make the issuance of a permit for the activity inappropriate.

There are no other factors that would make the issuance of a permit for the activities inappropriate.

8. Procedures/Methods:

Methods:

Individual site assessment survey, remote sensing survey, artifact recovery and video collection are primary objectives, and monitoring and site/environmental data are secondary objectives, of the proposed 2009 maritime heritage project. Where possible, survey locations are prioritized, providing flexible alternatives in case of rough weather, other mission priorities, etc. The following methods will be employed for each of the four proposed 2009 objectives:

1) site assessment survey

Baseline trilateration and measured sketching will provide data for the initiation of the site map. Trilateration and the creation of a site map consists of sketching major features and measuring distances between artifacts in reference to a fixed temporary baseline, and is a time-consuming task. Divers deploy a temporary baseline, replicating previous surveys by attaching the baseline to fixed stainless steel datums. Survey tapes, slates with mylar "paper," and pencils and then used to triangulate the position of all artifacts in reference to the fixed reference line. In addition, digital video and digital photography are used to document feature and artifact details, as well as record the survey process itself. Artifacts and features are temporarily tagged with numbers and photographed in-place. Photos include scale and magnetic sign board. Also, hand-held metal detectors are used to confirm/eliminate the presence of iron within sediments or substrate, and limited hand fanning of loose sediments and limited sediment probing is used to record details of artifacts and site boundaries. Typically, remote sensing survey methods are also employed in the vicinity when available to help determine site boundaries during individual site survey.

Equipment: Underwater slates
Transect tapes
Pencils

- Folding rulers
- Gear bags
- Open-circuit scuba
- Photo scales
- Plastic artifact tags
- Magnetic sign board for archaeological photos
- Copper wire sediment probes
- Garmin GPS units and waterproof boxes
- Pelican marker floats
- Site buoy

2) remote sensing survey

Remote sensing survey locates anomalies and potential maritime heritage resources for subsequent site assessments. The surface vessel tows a remote magnetometer sensor (towfish) on linear parallel tracks at or near the surface for shallow zones, recording variations in the localized magnetic field (gamma). The data is processed shipboard. A second alternative, diver tow boarding, though not technically "remote sensing" (divers in the water doing real-time visual survey), is sometimes used to supplement normal remote sensing. Diver survey is particularly helpful in shallow areas of extreme topographical variation. Any potential diver tow boarding operations during 2009 will be conducted only following established training provided by NOAA NMFS and along established NOAA NMFS tow boarding protocols for the NWHI.

Equipment: Marine Magnetics Explorer Mini Magnetometer
Klein Model 3000 Side Scan Sonar
Tow boards
Laptop
HyPack survey software
Honda eu2000i generator or marine 12v batteries

3) monitoring sites

Monitoring sites employs a small subset of the same methods used for initial site survey. Slates, tapes, and (if necessary) temporary re-deployment of the baseline are used to confirm possible movement of features or artifacts. Digital photography is used to generate comparative data on the condition of features and changes to the natural environment (sediment level, etc.).

Equipment: Underwater slates
Transect tapes
Pencils
Gear bags
Olympus 5060 digital camera and Light-in-Motion housing
HD Sony digital video camera and housing
Site buoy

4) artifact recovery (marine sites)

Artifact removal, assessment and documentation:

Diagnostic artifacts are necessary for wreck site identification. Additionally, artifacts become invaluable means of education and outreach for the public, particularly for remote sites that visitors may never get to visit. In the case of one try-works brick proposed for recovery in 2009 from an unidentified whaling shipwreck site at French Frigate Shoals, they may also be at risk due to looting and disturbance from divers, and resource agencies' current limited enforcement capability in the remote Northwestern Hawaiian Islands. Removal of a fire brick will assist maritime heritage managers in confirming the identity of the shipwreck site and provide an important artifact to be shared with the public, adding to interpreting the site. Removal consists of collecting the artifact from the surface of the hard bottom substrate, placing them into a padded container underwater and carefully transporting them to the dive boat and main vessel. No sediment or substrate will be moved or disturbed in the process (artifacts are not buried).

Once the artifact is carefully recovered from the shipwreck site by NOAA maritime archaeologists, the objects will be fully documented. The fire brick will be assigned an artifact field numbers immediately upon return to the research vessel, followed by complete photo documentation, including bar scale, date, and field number. The artifact will be measured and sketched, note being made of any markings and diagnostic features. The artifact will then be stored submerged in fresh water and transported wet. This prevents hardening of calcium carbonate deposits. Once in Honolulu, proper treatment of this water will take place (see attached protocol). Proper protocol for fire bricks is to give several fresh water rinses and slowly air dry the artifact (no conservation necessary). Following treatment, the artifacts will be delivered to the curatorial facility in Hilo for further study and public display.

All proper artifact transport protocol will be followed. Please see attached protocol methodology.

NOTE: If land or marine archeological activities are involved, contact the Monument Permit Coordinator at the address on the general application form before proceeding, as a customized application will be needed. For more information, contact the Monument office on the first page of this application.

9a. Collection of specimens - collecting activities (would apply to any activity): organisms or objects (List of species, if applicable, attach additional sheets if necessary):

Common name:

Scientific name:

& size of specimens:

Collection location:

☐ Whole Organism ☐ Partial Organism

9b. What will be done with the specimens after the project has ended?

9c. Will the organisms be kept alive after collection? ☐ Yes ☐ No

• General site/location for collections:

• Is it an open or closed system? ☐ Open ☐ Closed

• Is there an outfall? ☐ Yes ☐ No

• Will these organisms be housed with other organisms? If so, what are the other organisms?

• Will organisms be released?

10. If applicable, how will the collected samples or specimens be transported out of the Monument?

11. Describe collaborative activities to share samples, reduce duplicative sampling, or duplicative research:

12. List all specialized gear and materials to be used in this activity:

13. List all Hazardous Materials you propose to take to and use within the Monument:
N/A

14. Describe any fixed installations and instrumentation proposed to be set in the Monument:

N/A

15. Provide a time line for sample analysis, data analysis, write-up and publication of information:

Initial results will be reported in the Cruise Report. Site reports resulting from this cruise will be finalized by June 2010. Data from this project will consist of trilateration site maps, digital still images and digital video images. A summary descriptive project report (activity report) including abstract, major accomplishments, participants, activity log, results of work to date, and proposed schedule of final report will be completed by December 1, 2009, within three months of the end of the expedition. A final report including heritage background, site descriptions, methodology, results, project evaluation and recommendations for maritime heritage resource management will be completed by July 2010. Data and report from this proposal will be sufficient to provide presentations at annual maritime history and maritime archaeology symposiums (for example Society for Historical Archaeology, Society for Hawaiian Archaeology, Symposium on the Maritime Archaeology and History of Hawai'i and the Pacific), and presentations will be made available upon request. Preservation-related data from the 2008 field season will also contribute to heritage preservation material on the NOAA Maritime Heritage Program web page (<http://sanctuaries.noaa.gov/maritime/>). Any film project created will be complete within one year of 2009 field work (08/2010) .

16. List all Applicant's publications directly related to the proposed project:
None.

With knowledge of the penalties for false or incomplete statements, as provided by 18 U.S.C. 1001, and for perjury, as provided by 18 U.S.C. 1621, I hereby certify to the best of my abilities under penalty of perjury of that the information I have provided on this application form is true and correct. I agree that the Co-Trustees may post this application in its entirety on the Internet. I understand that the Co-Trustees will consider deleting all information that I have identified as "confidential" prior to posting the application.

Signature

Date

SEND ONE SIGNED APPLICATION VIA MAIL TO THE MONUMENT OFFICE BELOW:

Papahānaumokuākea Marine National Monument Permit Coordinator
6600 Kalaniana'ole Hwy. # 300
Honolulu, HI 96825
FAX: (808) 397-2662

DID YOU INCLUDE THESE?

- ☒ Applicant CV/Resume/Biography
- ☐ Intended field Principal Investigator CV/Resume/Biography
- ☒ Electronic and Hard Copy of Application with Signature
- ☒ Statement of information you wish to be kept confidential
- ☐ Material Safety Data Sheets for Hazardous Materials

Papahānaumokuākea Marine National Monument Compliance Information Sheet

1. Updated list of personnel to be covered by permit. List all personnel names and their roles here (e.g. John Doe, Diver; Jane Doe, Field Technician, Jerry Doe, Medical Assistant):

1. Kelly Gleason (NOAA NMSP), Maritime Archaeologist/Diver and Chief Scientist
2. Derek Smith (HIMB), Biologist/Diver
3. Ann Mooney (NOAA NMSP), Physical Scientist/Diver
4. Caitlyn Miles (HPU), Physical Scientist/Diver
5. Jennifer Canale (HPU), Physical Scientist/Diver
6. John Yeh (SOEST), Physical Scientist/Diver
7. Anela Choy (HPU), Physical Scientist/Diver

2. Specific Site Location(s): (Attach copies of specific collection locations):

(Were submitted, but have been removed for confidentiality reasons)

3. Other permits (list and attach documentation of all other related Federal or State permits):

State of Hawaii DLNR Section 106 Compliance (Complete)

3a. For each of the permits listed, identify any permit violations or any permit that was suspended, amended, modified or revoked for cause. Explain the circumstances surrounding the violation or permit suspension, amendment, modification or revocation. N/A

4. Funding sources (Attach copies of your budget, specific to proposed activities under this permit and include funding sources. See instructions for more information):

5. Time frame:

Activity start: 6/9/2009

Activity completion: 7/3/2009

Dates actively inside the Monument:
From: 6/9/2009
To: 7/3/2009

Describe any limiting factors in declaring specific dates of the proposed activity at the time of application: Ship schedule changes (due to maintenance, etc.)

Personnel schedule in the Monument:

6. Indicate (with attached documentation) what insurance policies, bonding coverage, and/or financial resources are in place to pay for or reimburse the Monument trustees for the necessary search and rescue, evacuation, and/or removal of any or all persons covered by the permit from the Monument:

7. Check the appropriate box to indicate how personnel will enter the Monument:

- ☒ Vessel
☐ Aircraft

Provide Vessel and Aircraft information:

8. The certifications/inspections (below) must be completed prior to departure for vessels (and associated tenders) entering the Monument. Fill in scheduled date (attach documentation):

- ☐ Rodent free, Date:
☐ Tender vessel, Date:
☐ Ballast water, Date:
☐ Gear/equipment, Date:
☐ Hull inspection, Date:

9. Vessel information (NOTE: if you are traveling aboard a National Oceanic and Atmospheric Administration vessel, skip this question):

Vessel name:
Vessel owner:
Captain's name:
IMO#:
Vessel ID#:
Flag:

Vessel type:
Call sign:
Embarkation port:
Last port vessel will have been at prior to this embarkation:
Length:
Gross tonnage:
Total ballast water capacity volume (m3):
Total number of ballast water tanks on ship:
Total fuel capacity:
Total number of fuel tanks on ship:
Marine Sanitation Device:
Type:

Explain in detail how you will comply with the regulations regarding discharge in the Monument. Describe in detail. If applicable, attach schematics of the vessel's discharge and treatment systems:

Other fuel/hazardous materials to be carried on board and amounts:

Provide proof of a National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement-approved Vessel Monitoring System (VMS). Provide the name and contact information of the contractor responsible for installing the VMS system. Also describe VMS unit name and type:

VMS Email:
Inmarsat ID#:

10. Tender information:

On what workboats (tenders) will personnel, gear and materials be transported within the Monument? List the number of tenders/skiffs aboard and specific types of motors:

Additional Information for Land Based Operations

11. Proposed movement of personnel, gear, materials, and, if applicable, samples:

12. Room and board requirements on island:

13. Work space needs:

DID YOU INCLUDE THESE?

- ☒ Map(s) or GPS point(s) of Project Location(s), if applicable
- ☐ Funding Proposal(s)
- ☐ Funding and Award Documentation, if already received
- ☐ Documentation of Insurance, if already received
- ☐ Documentation of Inspections
- ☐ Documentation of all required Federal and State Permits or applications for permits

Disease and Introduced Species Prevention Protocol for the Recovery of Artifacts from the Papahānaumokuākea Marine National Monument Marine Environment

Artifacts Recovered from the Papahānaumokuākea Marine National Monument Marine Environment in 2009 included in the Maritime Heritage Management Activities Permitted by the Monument Management Board will address the potential for the spread of disease and/or introduced species from the Monument in the following manner:

1. All artifacts recovered in 2009 lay in sand or hard substrate and are not in contact with diseased coral tissue or other diseased organisms.
2. Once maritime archaeologists recover the artifacts from the seafloor, each artifact will immediately be placed in separate sealed plastic containers filled with fresh water.
3. The containers will be sealed and taped shut on the small boat so that no water escapes the plastic bin once the artifact has been placed inside.
4. Upon return to the NOAA ship HI'IALAKAI, the sealed plastic containers with artifacts and fresh water will be placed in a secure space in the ship's wet lab.
5. Upon return to Honolulu, the artifacts will be removed from the fresh water and transferred to fresh water containers to be kept in Honolulu.
6. Once removed from the fresh water, this water will be treated with a 1:32 dilution of commercial bleach (1/2 cup bleach per gallon of fresh water), yielding a 1000 ppm dilution of sodium hypochlorite, or 3% free chlorine solution. (The bleached water will be disposed of in Honolulu.)
7. Once artifacts have been stabilized they will be transported to Mokupapapa Discovery Center in Hilo, Hawaii for curation.
8. Curation will begin, at which point all prevention protocol will be complete.